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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

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April 2, 2002

James T. Jensen, Vice President
Savage Industries Inc.
5250 South 300 West, Suite 200
Salt Lake City, Utah 84107

Re: Topsoil Stripping Amendment, Savage Industries, Inc., Savage Coal Terminal, C/007/022-02A, Outgoing File

Dear Mr. Jensen:

Over the course of the last month, the permit amendment to allow topsoil stripping for additional coal storage has been under review by the Division. A copy of our Technical Analysis is enclosed for your information. There are deficiencies that must be adequately addressed prior to approval. My staff has been in communication with Mr. Dan Guy who is aware of the issues.

If you have any questions, please call me at (801) 538-5325 or Priscilla Burton at (801) 538-5288.

Sincerely,

Daron R. Haddock

Daron R. Haddock
Permit Supervisor

PWB/sd
Enclosure
cc: Price Field Office
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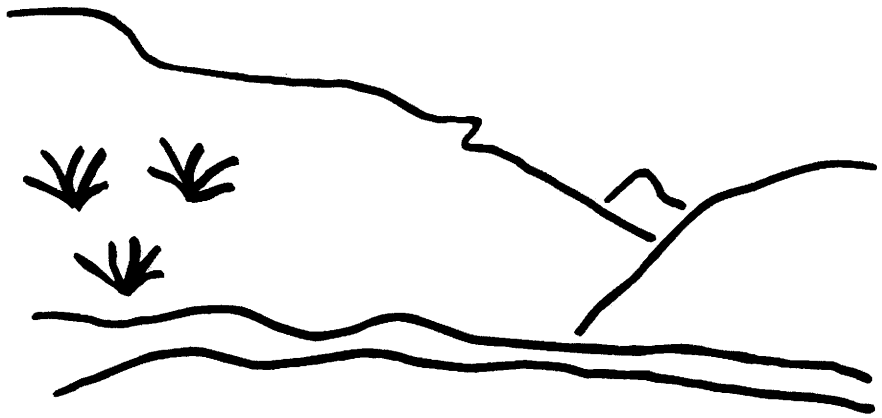
State of Utah



Utah Oil Gas and Mining

Coal Regulatory Program

Savage Coal Terminal
Topsoil Stripping
C/007/022-02A
Technical Analysis
April 1, 2002

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TECHNICAL ANALYSIS

INTRODUCTION

On February 28, 2002 the Division received a permit amendment to develop 13.3 undisturbed acres within the permit area for a coal stockpile. The area is located Southwest of the Trail Canyon Truck Dump, within the railroad loop. Maps 3-1, and 3-2 show the location of the storage area. Prior plans were to develop this area as a "Coal Refuse" storage area. This analysis follows the requirements of R645-303-227 for review of permit amendments.

A soil survey for the permit area was conducted in 1980 and one pit was dug within the proposed disturbed area of Killpack soils. That pit and accompanying laboratory analysis indicates that up to sixteen inches of soil could be salvaged from the map unit. At present, the plan proposes to salvage six inches of soil. The site as a whole is running on a deficit of topsoil, for that reason, soil salvage from the proposed disturbed area could be extended to a depth of 16 inches based upon a qualified soil scientist's evaluation of the site. There is one exception and that is the barren area of Chipeta soils adjacent to the haul road along the southern length of the site, where only 3-6 inches of soil exists over weathered shale.

It would be advantageous to the Permittee to quantitatively document the condition of the wetland vegetation within the proposed disturbed area so that successful reclamation for wetland areas within the permit can be patterned after previously existing wetland descriptions. i.e. the baseline data method described in the Vegetation Information Guidelines.[1] The wetland within the proposed disturbance is one of two last wetlands remaining in the permit area. As required under R645-301-731, Savage Coal Terminal must determine the extent of the wetland, and comply with the requirements of the Clean Water Act and the U.S. Army Corps Nationwide Permit 21.

After a review of the disturbed area soil survey and test plot #2 summation, the Division concludes that the scenario for reclamation of the disturbed ground at the site is not likely to succeed based upon the laboratory analysis provided of the disturbed soil. Since only one sample was taken for analysis of the disturbed soil in1980, it is recommended that the plan include a commitment for further sampling at the time of reclamation to determine the scope of the sodic hazard within the disturbed area.

[1] Utah Division of Oil, Gas and Mining. February 1992. Vegetation Information Guidelines. p 6.

INTRODUCTION

SUMMARY OF DEFICIENCIES

The Technical Analysis of the proposed permit changes cannot be completed at this time. Additional information is requested of the permittee to address deficiencies in the proposal. A summary of deficiencies is provided below. Additional comments and concerns may also be found within the analysis and findings made in this Draft Technical Analysis. Upon finalization of this review, any deficiencies will be evaluated for compliance with the regulatory requirements. Such deficiencies may be conditioned to the requirements of the permit issued by the Division, result in denial of the proposed permit changes, or may result in other executive or enforcement action as deemed necessary by the Division at that time to achieve compliance with the Utah Coal Regulatory Program.

Accordingly, the permittee must address those deficiencies as found within this Draft Technical Analysis and provide the following, prior to approval, in accordance with the requirements of:

Regulations

R645-301-121.200, Correct the statement on page 8-1 of the MRP to read that six major soil series were described at the site and five were sampled. 13

R645-301-122, The Division requests a copy of the James P. Walsh and Associates (July 1980) soil survey and an original copy of the laboratory analyses conducted by Colorado Agricultural Consultants of Brighton Colorado 13

R645-301-231.400, Describe in Section 3.5.2 the use of extreme roughening and incorporation of organic matter into the surface of the salvaged and stockpiled soil 22

R645-301-232, Include a commitment in the plan that a qualified soil scientist will be on site during soil salvage and construction of soil storage piles 22

R645-301-232.500, Fill in the acreage in revised Table 8-6 and evaluate the potential of the Killpack soil to provide up to sixteen inches soil for salvage as described in the existing MRP, Tables 8-5 and 8-6 22

R645-301-240, Modify the Topsoil Mass Balance Table 8-9 to reflect actual salvage depths of soils after evaluation by a qualified soil scientist, i.e. topsoil available may increase as well as maximum area for 6" redistribution 29

R645-301-244, Modify the plan on page 3-54 and 3-54a, Section 3.5.2, to state that 2,000 pounds/acre of hay mulch will be applied to the soil stockpile prior to roughening the soil and 2,000 lbs/ac of wood fiber mulch and 60 lbs/ac tackifier will be applied to the surface with the hydro-seeding operation 33

R645-301-322, Provide a commitment in the plan to conduct further sampling of the disturbed

GENERAL CONTENTS

IDENTIFICATION OF INTERESTS

Regulatory Reference: 30 CFR 773.22; 30 CFR 778.13; R645-301-112

Minimum Regulatory Reference:

The operator of the coal mine and all owners and controllers of the operation must be identified by name and address. The Division with the Applicant/Violator System must crosscheck the information provided and other sources such as DOGM inspection and enforcement records, State corporation commission or tax records. If the Division identifies any errors in the ownership or control information, the applicant must be contacted to resolve the matter immediately. If the Division discovers that none of the persons identified in the application has had any previous mining experience, the applicant will be contacted to verify this fact.

The Applicant/Violator System will be updated with new information received by the Division.

Analysis:

Section 2.2.1 of the MRP indicates that the Permittee and Operator is Savage Industries Inc.; 5250 South 300 West, Ste 200; Salt Lake City, UT, 84107. Send all correspondence to the Attention of Mr. James T. Jensen, Executive Vice President and General Counsel.

Savage Industries Inc is a Utah corporation. Officers and Directors of the corporation are listed in Section 2.2.7.1. Savage Industries Inc. also operates the Catale Oklahoma Loadout in Catale, Oklahoma (MRP, Section 2.2.7.3).

Section 2.2.6 of the MRP indicates that the Resident Agent for the Permittee is C.T. Corporation Systems; 50 West Broadway; Salt Lake City, Utah 84101. Phone: 1 (800) 441-9820.

Authorized Representatives of the Permittee are listed in Appendix 2-8 of the MRP. They are James Jensen, Boyd Rhodes, and Dan W. Guy for Boyd Rhodes.

Throughout the MRP the Permittee is variously called "Swisher Coal Co," "Beaver Creek Coal Company" or "Mountain Coal Company" or "Savage Industries Inc, " reflecting the change in ownership over the years (MRP, Section 2.1).

The surface and subsurface ownership belongs to Mountain Coal Company; P.O. Box 591; Somerset, CO, 81434. Savage Industries Inc holds a lease on the surface and subsurface minerals. Mountain Coal Company has posted the bond for the site (MRP, Section 2.8 and Appendix 2-4).

The MSHA Identification Number for the site is 42-01444. The MSHA identification number for the refuse pile is found in the MRP Appendix 2-5: 1211-UT-9-0033 for temporary refuse storage and 1211-UT-9-0034 for permanent refuse storage.

Findings:

The information provided meets the Identification of Interests requirements of the Regulations.

VIOLATION INFORMATION

Regulatory Reference: 30 CFR 773.15(b); 30 CFR 773.23; 30 CFR 778.14; R645-300-132; R645-301-113

Minimum Regulatory Reference:

The application must inform the Division of any of the following:

(1) State or Federal permits suspension or revocation;
(2) Bond or other security forfeiture in the last five years;
(3) Any State or Federal violations received in the last three years by the applicant or any subsidiary, affiliate, or persons controlled by or under common control with the applicant. All outstanding violations (regardless of date) must also be disclosed.

The Division will review all available information and will not issue a permit if any operation owned or controlled by the applicant or linked to the applicant is in violation of SMCRA or the State Program or any State or Federal environmental law.

The Division will notify the applicant of the violation, suspension or forfeiture hindering their current application for permit and give the applicant an opportunity to rebut the findings. The Division will keep the Applicant Violator System updated.

Analysis:

Compliance information on the site is found in the MRP Appendix 2-2, incorporated July 6, 1995.

Findings:

The information provided should be updated with this application. Prior to approval the permittee must provide the following in accordance with:

R645-303-227 and R645-301-113.300, Update the compliance information found in Appendix 2-2

RIGHT OF ENTRY

Regulatory Reference: 30 CFR 778.15; R645-301-114

Minimum Regulatory Reference:

Documents giving legal right to enter the permit area must be detailed in the application by date, type of document, land description and rights claimed. Any pending litigation over these legal rights must be disclosed.

The written consent of the landowner for the extraction of the coal by surface mining methods must also be included when the surface and mineral owners are different. Also a copy of the conveyance that grants the legal authority to extract the coal by surface methods will be included.

The Division does not have the authority to adjudicate property rights disputes.

Analysis:

Table 4-1 and 4-2 of the MRP show required leases, easements and rights to access.

Findings:

The information provided meets the Right of Entry requirements of the Regulations.

LEGAL DESCRIPTION AND STATUS OF UNSUITABILITY CLAIMS

Regulatory Reference: 30 CFR 778.16; 30 CFR 779.12(a); 30 CFR 779.24(a)(b)(c); R645-300-121.120; R645-301-112.800; R645-300-141; R645-301-115.

Minimum Regulatory Reference:

The application will describe and identify the lands (on a map) subject to coal mining over the life of the operation, including the size, sequence, and timing of the mining anticipated and permit boundaries. Coal mining and reclamation operations may only occur on the lands identified on the maps submitted and that are subject to the performance bond.

A public notice advertisement will contain a map or description of the precise location and boundaries of the proposed permit area. So that local residents can identify the area, the map must have a north arrow and may include local landmarks.

Analysis:

Exhibit A of Appendix 2-4 of the MRP describes the permit area as the SW1/4 Section 11, T. 15 S., R. 10 E., SLM, Utah, (160 acres more or less). This figure is more exactly described in the MRP Section 2.6 as 153.46 acres. The Permit issued in 1999 refines the legal description as follows:

Township 15 South Range 10, East, SLBM

Section 11: W1/2SW1/4 except 0.24 ac in NW corner, E1/2SW1/4 except East 100 feet and 5.42 ac. in SW corner.

The operation is within 100' of a public road providing access to the site. There are no dwellings within a ¼ mile of the permit area (MRP, Section 2.5).

Findings:

The Division's Findings (July 6, 1995, State Decision Document Permit Transfer, ACT/007/022) concerning the status of lands unsuitable remains unchanged with this Permit Modification as there has been no change to the legal description of the lands involved.

PERMIT TERM

Regulatory References: 30 CFR 778.17; R645-301-116.

Minimum Regulatory Reference:

The application will describe and identify the lands (on a map) subject to coal mining over the life of the operation, including the size, sequence, and timing of the mining anticipated and permit boundaries. Coal mining and reclamation operations may only occur on the lands identified on the maps submitted and that are subject to the performance bond.

A public notice advertisement will contain a map or description of the precise location and boundaries of the proposed permit area. So that local residents can identify the area, the map must have a north arrow and may include local landmarks.

Analysis:

The current permit for the Savage Coal Terminal was issued August 7, 1999 to Savage Industries Inc. The permit expires August 7, 2004. The life of mine is indefinite and renewals will be sought every five years (MRP Section 2.6).

Findings:

The information provided meets the permit term requirements of the regulations.

ENVIRONMENTAL RESOURCE INFORMATION

Regulatory Reference: Pub. L 95-87 Sections 507(b), 508(a), and 516(b); 30 CFR 783., et. al.

PERMIT AREA

Regulatory Requirements: 30 CFR 783.12; R645-301-521.

Minimum Regulatory Requirements:

Describe and identify the lands subject to surface coal mining operations over the estimated life of those operations and the size, sequence, and timing of the subareas for which it is anticipated that individual permits for mining will be sought.

Analysis:

The site is located about four miles southeast of Price Utah at the following address: 2025 East 5000 South, Price Utah 84501. The site is referred to throughout the MRP as the Castle Valley Spur Processing and Loadout Facility or CV Spur (MRP, Section 2.2.10), however the name was changed to the Savage Coal Terminal with transfer of the permit in 1999 to Savage Industries, Inc. (Attachment A of the 1995 Permit).

The 126 acre site is located approximately 4,000 feet southwest from the Price River floodplain and 4,000 feet north of Miller Creek. The permit area lies on what used to be undeveloped rangeland dominated by shadscale and mat saltbush. The area is zoned for industrial use (Section 4.4.3) and developing as an industrial corridor along Ridge Road between State Hwy 10 and Wellington.

Findings

The information provided meets the permit area requirements of the Regulations.

CLIMATOLOGICAL RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.18; R645-301-724.

Minimum Regulatory Requirements:

Provide a statement of the climatological factors that are representative of the proposed permit area, including: the average seasonal precipitation; the average direction and velocity of prevailing winds; and, seasonal temperature ranges. Additional data may be requested as deemed necessary to ensure compliance other regulatory requirements.

Analysis:

From the soils descriptions and Map Unit Descriptions provided in Chapter 8, the mean annual precipitation is given as 6 – 11 inches and the mean annual soil temperature ranges is 47 – 48 degrees Fahrenheit. The frost-free period is 110 to 160 days.

Table IV-5 Estimated Return Periods for Short Duration Precipitation indicates that Table IV-6 shows the average monthly precipitation for the period 1936 – 1976 and the climatology summary by month for the period 1936 – 1965 is given in Table IV-7. Table IV-6 and Table IV-7 could not be found within the MRP.

Climatological information is provided in Section 11 of the MRP. Table 11 -1 provides the Mean Monthly Precipitation (inches) 1931-1955. Current climatological information is requested for the Price/Wellington area.

Findings:

Current climatological resource information must be provided in the Mining and Reclamation Plan (MRP). Prior to approval the permittee must provide the following in accordance with:

R645-301-724, Locate Tables IV-6 and IV-7 of the MRP and amend Tables IV-6 and IV-7 and Table 11-1 to have current climatological data

VEGETATION RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.19; R645-301-320.

Minimum Regulatory Requirements:

Provide a map that delineates existing vegetative types and a description of the plant communities within the area affected by surface operations and facilities and within any proposed reference area. The description shall include information adequate to predict the potential for reestablishing vegetation. The map or aerial photograph is required, sufficient adjacent areas shall be included to allow evaluation of vegetation as important habitat for fish and wildlife for those species of fish and wildlife as identified under the fish and wildlife resource information.

Analysis:

Table 9-1 outlines the areal extent of each vegetation type within the permit area. Industrial and agricultural disturbed ground accounts for 132 acres within the permit area. Undisturbed acreage amounts to 22 acres.

Plate 9-1 of the MRP shows three phases of vegetation within the salt desert vegetation type that will be disturbed by the proposed coal storage area: shadscale phase, greasewood phase and saltgrass phase. In addition, approximately 2 acres of the proposed coal storage area is shown as previously disturbed on Plate 9-1.

In September 1982, Stoecker-Keammerer & Associates Ecological Consultants of Boulder, Colorado, quantitatively described the shadscale phase of the salt desert community, with cover, production and density information. The other salt desert community phases were qualitatively described by dominant and conspicuous species.

In the shadscale phase, shrubs accounted for 71.3% of the total vegetation cover, with the average total vegetative cover being 19%. The dominant plants in the proposed disturbed area are shadscale (Atriplex confertifolia) and rubber rabbitbrush (Chrysothanmnus nauseosus). The most common grass was galleta (Hillaria jamesii) and important forbs were marsh alder (Iva acillaris) and globe mallow (Sphaeralcea sp.).

The vegetation reference area is discussed under the revegetation section of this analysis.

Findings:

Information provided in the mining and reclamation plan is adequate to meet the Vegetation Resource requirements of the Regulations.

FISH AND WILDLIFE RESOURCE INFORMATION

Regulatory Reference: 30 CFR 784.21; R645-301-322.

Minimum Regulatory Reference:

The application shall include fish and wildlife resource information for the permit area and adjacent area. The scope and level of detail for such information shall be determined by the Division in consultation with State and Federal agencies with responsibilities for fish and wildlife and shall be sufficient to design the protection and enhancement plan required under the operation and reclamation plan.

Site-specific resource information necessary to address the respective species or habitats shall be required when the permit area or adjacent area is likely to include:

(1) Listed or proposed endangered or threatened species of plants or animals or their critical habitats listed by the Secretary under the endangered Species Act of 1973, as amended (16 U.S.C. 1531 et seq.), or those species or habitats protected by similar State statutes;
(2) Habitats of unusually high value for fish and wildlife such as important streams, wetlands, riparian areas, cliffs supporting raptors, areas offering special shelter or protection, migration routes, or reproduction and wintering areas; or
(2) Other species or habitats identified through agency consultation as requiring special protection under State or Federal law.

Analysis:

The proposed disturbed area is home to the Ring-neck Pheasant and Morning Dove, songbirds, black-tailed jackrabbit (Lepus californicus), white-tailed jackrabbit (L. townsendi) and desert conttontail (Sylvilagus audoboni), badger (Taxidea taxus) and coyote (Canis latrans). Table 10-1 lists all species that could inhabit the area. Plate 10-1 maps the burrows of the white-tailed prairie dog (Cynomus leucurus). A Threatened and Endangered Species survey also conducted in 1980 did not reveal any of the three federally listed species of concern: Bald Eagle, Peregrine Falcon, and Black-footed Ferret (Section 10.3.3).

Mr. Joe Helfrich, a wildlife biologist with the Division, has been inspecting the site for the past two years and has not seen any evidence of species of concern.

Findings:

Information provided in the mining and reclamation plan is adequate to meet the Fish and Wildlife Resource requirements of the Regulations.

SOILS RESOURCE INFORMATION

Regulatory Reference: 30 CFR 783.21; 30 CFR 817.22; 30 CFR 817.200(c); 30 CFR 823; R645-301-220; R645-301-411.

Minimum Regulatory Requirements:

Provide adequate soil survey information on those portions of the permit area to be affected by surface operations or facilities consisting of a map delineating different soils, soil identification, soil description, and present and potential productivity of existing soils.

Where selected overburden materials are proposed as a supplement or substitute for topsoil, provide results of the analysis, trials and tests required. Results of physical and chemical analyses of overburden and topsoil must be provided to demonstrate that the resulting soil medium is equal to or more suitable for sustaining revegetation than the available topsoil, provided that trials and tests are certified by an approved laboratory. These data may be obtained from any one or a combination of the following sources: U.S. Department of Agriculture Soil Conservation Service published data based on established soil series; U.S. Department of Agriculture Soil Conservation Service Technical Guides; State agricultural agency, university, Tennessee Valley Authority, Bureau of Land Management or U.S. Department of Agriculture Forest Service published data based on soil series properties and behavior; or, results of physical and chemical analyses, field site trials, or greenhouse tests of the topsoil and overburden materials (soil series) from the permit area. If the permittee demonstrates through soil survey or other data that the topsoil and unconsolidated material are insufficient and substitute materials will be used, only the substitute materials must be analyzed.

Analysis:

A soil survey of the Savage Coal Terminal was conducted in 1980 by James P. Walsh and Associates in July 1980 (MRP, Section 8, p8-1). The survey is referred to but not included with the plan.

The following pedons were described at the loadout site: Billings Series; Chipeta Series; Disturbed Lands; Killpack Series; Killpack Series High Water Table Variant; Saltair Series (pp 8-3 to 8-11). All are gypsiferous soils formed from Mancos shale.

Pedon descriptions are provided for six major soil series at the site (MRP, p 8-1). Five of the six soils were sampled and sent for analysis by Colorado Agricultural Consultants of Brighton, Colorado. [In classifying the soils, field descriptions took precedence over laboratory information (p 8-2).] Analytical results for all but the Saltair Series are presented in Table 8-5, Soil Chemical and Physical Analysis. Assessments of soil quality are presented in Table 8-4, Evaluation of Seedbed Quality Material, based upon the criteria of Table 8-3, Soil Suitability As Seedbed Quality Material.

Table 8-5 Soil Chemical and Physical Analysis does not present the original laboratory sheets for the samples taken, but has been retyped into the application. Table 8-5 indicates that the surface three inches of Chipeta soil had an accumulation of salts: pH 7.7 and Electrical Conductivity of 4.8, with an SAR of 6.1. Below the surface the pH is neutral 7.0 and the EC climbs to 9.2 but the SAR falls to 3.5, reflecting the presence of calcium sulfate (gypsum) rather than sodium carbonate in the soil.

Table 8-5 also indicates that the Killpack soil has near neutral pH with an EC of approximately 5.0. The reported values for SAR are peculiar in this soil: 2.8 in the top two inches, 8.1 between 2 and 8 inches, and 2.1 from 8 – 22 inches, jumping to 13.6 below 22 inches. The Killpack soil is a loam on the surface and clay loam from two to eight inches. Below eight inches the soil is clay, 45% by analysis. The Killpack, High Water Table Variant, is similar except that clay loam texture extends to sixteen inches. This suggests that the soil salvage of the Killpack soils could extend to sixteen inches.

Disturbed land is described on pages 8-6 and 8-16 and in Table 8-5. The original surface layer was removed and twelve inches of gravel fill was placed over the subsoil. Below twelve inches the earth is light grayish brown, massive, hard, very sticky and very plastic, calcareous, with numerous gypsum crystals and threads. This information is contradicted by Table 8-5 where the percent clay is listed as 10% and the texture is given as silty loam and the saturation is 37%, typical of loam soil, not clays. Below twelve inches the pH is 7.6 and the EC is 47.9, the SAR is 18.8 and the Nitrogen content is 72%. This soil is toxic (sodic) and will be very difficult to use as germination medium. Further sampling is recommended to evaluate the extent of the sodic hazard and to develop a management plan that will provide adequate soil cover for germination and rooting.

Findings:

Information provided in the mining and reclamation plan is not adequate to meet the Soils Resource requirements of the Regulations. Prior to approval the permittee must provide the following in accordance with:

R645-301-121.200, Correct the statement on page 8-1 of the MRP to read that six major soil series were described at the site and five were sampled.

R645-301-122, The Division requests a copy of the James P. Walsh and Associates (July 1980) soil survey and an original copy of the laboratory analyses conducted by Colorado Agricultural Consultants of Brighton Colorado

R645-301-322, Provide a commitment in the plan to conduct further sampling of the disturbed soils upon final reclamation such that the extent of the sodic hazard can be determined and a management plan can be developed for the disturbed soils of the site

ALLUVIAL VALLEY FLOORS

Regulatory Reference: 30 CFR 785.19; 30 CFR 822; R645-302-320

Minimum Regulatory Requirements:

This section applies to surface coal mining and reclamation operations on areas or adjacent to areas including alluvial valley floors in the arid and semiarid areas west of the 100th meridian.

Alluvial valley floor determination

Permit applicants who propose to conduct surface coal mining and reclamation operations within a valley holding a stream or in a location where the permit area or adjacent area includes any stream, in the arid and semiarid regions of the United States, as an initial step in the permit process, may request the Division to make an alluvial valley floor determination with respect to that valley floor. The applicant shall demonstrate and the Division shall determine, based on either available data or field studies submitted by the applicant, or a combination of available data and field studies, the presence or absence of an alluvial valley floor. Studies shall include sufficiently detailed geologic, hydrologic, land use, soils, and vegetation data and analysis to demonstrate the probable existence of an alluvial valley floor in the area. The Division may require additional data collection and analysis or other supporting documents, maps, and illustrations in order to make the determination.

The Division shall make a written determination as to the extent of any alluvial valley floors within the area. The Division shall determine that an alluvial valley floor exists if it finds that unconsolidated streamlaid deposits holding streams are present; and there is sufficient water available to support agricultural activities as evidenced by the existence of current flood irrigation in the area in question; the capability of an area to be flood irrigated, based on evaluations of streamflow, water quality, soils, and topography; or, subirrigation of the lands in question derived from the ground-water system of the valley floor.

If the Division determines in writing that an alluvial valley does not exist pursuant to the requirements of this section, no further consideration of this section is required.

Applicability of statutory exclusions

If an alluvial valley floor is identified and the proposed surface coal mining operation may affect this alluvial valley floor or waters that supply the alluvial valley floor, the applicant may request the Division, as a preliminary step in the permit application process, to separately determine the applicability of the statutory exclusions set forth in this section. The Division may make such a determination based on the available data, may require additional data collection and analysis in order to make the determination, or may require the applicant to submit a complete permit application and not make the determination until after the complete application is evaluated.

An applicant need not submit the information required and the Division is not required to make the findings required of this section when the Division determines that one of the following circumstances, heretofore called statutory exclusions, exist:

1. The premining land use is undeveloped rangeland that is not significant to farming;

2. Any farming on the alluvial valley floor that would be affected by the surface coal mining operation is of such small acreage as to be of negligible impact on the farm's agricultural production. Negligible impact of the proposed operation on farming will be based on the relative importance of the affected farmland areas of the alluvial valley floor area to the farm's total agricultural production over the life of the mine; or,

3. The circumstances set forth in Section 822.12(b)(3) or (4) of this Chapter exist.

For the purpose of this section, a farm is one or more land units on which farming is conducted. A farm is generally considered to be the combination of land units with acreage and boundaries in existence prior to August 3, 1977, or if established after August 3, 1977, with those boundaries based on enhancement of the farm's agricultural productivity and not related to surface coal operations.

(c) Summary denial. If the Division determines that the statutory exclusions are not applicable and that any of the required findings of Paragraph (e)(2) of this section cannot be made, the Division may, at the request of the applicant:
(1) Determine that mining is precluded on the proposed permit area and deny the permit without the applicant filing any additional information required by this section; or
(2) Prohibit surface coal mining and reclamation operations in all or parts of the area to be affected by mining.
(d) Application contents for operations affecting designated alluvial valley floors. (1) If land within the permit area or adjacent area is identified as an alluvial valley floor and the proposed surface coal mining operation may affect an alluvial valley floor or waters supplied to an alluvial valley floor, the applicant shall submit a complete application for the proposed surface coal mining and reclamation operations to be used by the Division together with other relevant information as a basis for approval or denial of the permit. If an exclusion of Paragraph (b)(2) of this section applies, then the applicant need not submit the information required in Paragraphs (d)(2)(ii) and (iii) of this section.
(2) The complete application shall include detailed surveys and baseline data required by the Division for a determination

of--

(i) The essential hydrologic functions of the alluvial valley floor which might be affected by the mining and reclamation process. The information required by this subparagraph shall evaluate those factors which contribute to the collecting, storing, regulating and making the natural flow of water available for agricultural activities on the alluvial valley floor and shall include, but are not limited to:

(A) Factors contributing to the function of collecting water, such as amount, rate and frequency of rainfall and runoff, surface roughness, slope and vegetative cover, infiltration, and evapotranspiration, relief, slope and density of drainage channels;

(B) Factors contributing to the function of storing water, such as permeability, infiltration, porosity, depth and direction of ground water flow, and water holding capacity;

(C) Factors contributing to the function of regulating the flow of surface and ground water, such as the longitudinal profile and slope of the valley and channels, the sinuosity and cross-sections of the channels, interchange of water between streams and associated alluvial and bedrock aquifers, and rates and amount of water supplied by these aquifers; and

(D) Factors contributing to water availability, such as the presence of flood plains and terraces suitable for agricultural activities.

(ii) Whether the operation will avoid during mining and reclamation the interruption, discontinuance, or preclusion of farming on the alluvial valley floor;

(iii) Whether the operation will cause material damage to the quantity or quality of surface or ground waters supplied to the alluvial valley floor;

(iv) Whether the reclamation plan is in compliance with requirements of the Act, this Chapter, and regulatory program; and

(v) Whether the proposed monitoring system will provide sufficient information to measure compliance with Part 822 of this Chapter during and after mining and reclamation operations.

(e) Findings. (1) The findings of Paragraphs (e)(2)(i) and (ii) of this section are not required with regard to alluvial valley floors to which are applicable any of the exclusions of Paragraph (b)(2) of this section.

(2) No permit or permit revision application for surface coal mining and reclamation operations on lands located west of the 100th meridian west longitude shall be approved by the Division unless the application demonstrates and the Division finds in writing, on the basis of information set forth in the application, that

(i) The proposed operations will not interrupt, discontinue, or preclude farming on an alluvial valley floor;

(ii) The proposed operations will not materially damage the quantity or quality of water in surface and underground water systems that supply alluvial valley floors; and

(iii) The proposed operations will comply with Part 822 of this Chapter and the other applicable requirements of the Act and the regulatory program.

Analysis:

Alluvial Valley Floor Determination

The 1989 Technical Analysis document that accompanied the Beaver Creek Coal Company permit outlines the existence of an alluvial valley floor in sections 1, 2, and 12 of T15S, R10E, based on published information and Plate 6-1 of the permit. The 1989 document also confirms the connection between the unconfined, upper aquifer beneath the permit area and the Quaternary alluvium within the Price River Alluvial Valley Floor. Ground water moves generally in an east-northeast direction.

Although French drains were installed to intercept the ground-water flow along the northern and western margins of the permit area towards the Price River, the eastern portion of the permit still has a moderately high potential for being hydrologically connected, year round, in the subsurface to the Price River Alluvial Valley Floor. The Permittee has monitored the shallow, unconfined aquifer along the eastern and western portions of the permit area. Plate 7-1 shows the monitoring locations, both of which are to the east of the proposed disturbance. Monitoring information is being filed in the electronic water database.

Hydrologic monitoring of the site was reviewed recently by Mr. Gregg Galecki (Inspection Report, December 18, 2001). Mr. Galecki agrees with the Division's 1989 determination that there is a low potential for degrading alluvial valley floor ground-water quality.

Applicability of Statutory Exclusions

The Division determined in 1989 that the Savage Coal Terminal:

1. Does not include the extraction of coal.
2. Will not result in a significant disturbance to the surface or groundwater regime.
3. Occurs on undeveloped rangeland that is not significant to farming, grazing, or any other agricultural activity.

Therefore, the statutory exclusion from operating within an alluvial valley floor was invoked.

Findings:

The statutory exclusion from operating within an alluvial valley floor has been invoked for this permitted site.

PRIME FARMLAND

Regulatory Reference: 30 CFR 785.16, 823; R645-301-221, -302-270.

Minimum Regulatory Requirements:

The U.S. Soil Conservation Service within each State shall establish specifications for prime farmland soil removal, storage, replacement, and reconstruction. The Division shall use the soil-reconstruction specifications to carry out its responsibilities under this section.

The requirements of this part shall not apply to:

Note: This section is suspended "insofar as it excludes from the requirements of Prime Farmlands those coal preparation plants, support facilities, and roads that are surface mining activities".

(1) Coal preparation plants, support facilities, and roads of surface and underground mines that are actively used over extended periods of time and where such uses affect a minimal amount of land.

(2) Disposal areas containing coal mine waste resulting from underground mines that is not technologically and economically feasible to store in underground mines or on non-prime farmland. The operator shall minimize the area of prime farmland used for such purposes.

(3) Prime farmland that has been excluded in accordance with any valid existing rights as indicated below.

This section applies to any person who conducts or intends to conduct surface coal mining and reclamation operations on prime farmland historically used for cropland. This section does not apply to:

(1) Lands on which surface coal mining and reclamation operations are conducted pursuant to any permit issued prior to August 3, 1977; or
(2) Lands on which surface coal mining and reclamation operations are conducted pursuant to any renewal or revision of a permit issued prior to August 3, 1977; or
(3) Lands included in any existing surface coal mining operations for which a permit was issued for all or any part thereof prior to August 3, 1977, provided that: such lands are part of a single continuous surface coal mining operation begun under a permit issued before August 3, 1977; and the permittee had a legal right to mine the lands prior to August 3, 1977, through ownership, contract, or lease but not including an option to buy, lease, or contract; and the lands contain part of a continuous recoverable coal seam that was being mined in a single continuous mining pit (or multiple pits if the lands are proven to be part of a single continuous surface coal mining operation) begun under a permit issued prior to August 3, 1977.

For purposes of this section, renewal of a permit means a decision by the Division to extend the time by which the

permittee may complete mining within the boundaries of the original permit, and revision of the permit means a decision by the Division to allow changes in the method of mining operations within the original permit area, or the decision of the Division to allow incidental boundary changes to the original permit. A pit shall be deemed to be a single continuous mining pit even if portions of the pit are crossed by a road, pipeline, railroad, or power line or similar crossing. A single continuous surface coal mining operation is presumed to consist only of a single continuous mining pit under a permit issued prior to August 3, 1977, but may include non-contiguous parcels if the operator can prove by clear and convincing evidence that, prior to August 3, 1977, the non-contiguous parcels were part of a single permitted operation. For the purposes of this paragraph, clear and convincing evidence includes, but is not limited to, contracts, leases, deeds or other properly executed legal documents (not including options) that specifically treat physically separate parcels as one surface coal mining operation.

All permit applications, whether or not prime farmland is present, shall include the results of a reconnaissance inspection of the proposed permit area to indicate whether prime farmland exists. The Division in consultation with the U.S. Soil Conservation Service shall determine the nature and extent of the required reconnaissance inspection.

If the reconnaissance inspection establishes that no land within the proposed permit area is prime farmland historically used for cropland, the applicant shall submit a statement that no prime farmland is present. The statement shall identify the basis upon which such a conclusion was reached.

If the reconnaissance inspection indicates that land within the proposed permit area may be prime farmland historically used for croplands, the applicant shall determine if a soil survey exists for those lands and whether soil mapping units in the permit area have been designated as prime farmland. If no soil survey exists, the applicant shall have a soil survey made of the lands within the permit area which the reconnaissance inspection indicates could be prime farmland. Soil surveys of the detail used by the U.S. Soil Conservation Service for operational conservation planning shall be used to identify and locate prime farmland soils.

If the soil survey indicates that no prime farmland soils are present within the proposed permit area, the plan shall include the results of a reconnaissance inspection of the proposed permit area to indicate whether prime farmland exists.

Analysis:

Abandoned agricultural land makes up 12.9% of the land at Savage Coal Terminal. The land was under cultivation in the 1930's, but was deemed uneconomical and abandoned (MRP, Section 9.3.2.2).

In June of 1980, the Soil Conservation Service determined that the site did not contain prime farmland, Figure 8-1, page 8-23.

Findings:

The Division concludes that there is no prime farmland within the permit area.

OPERATION PLAN

MINING OPERATIONS AND FACILITIES

Regulatory Reference: 30 CFR 784.2, 784.11; R645-301-231, -301-526, -301-528.

Minimum Regulatory Requirements:

The objectives of this section is to ensure that the Division is provided with comprehensive and reliable information on proposed underground mining activities, and to ensure that those activities are allowed to be conducted only in compliance with the regulatory program.

Provide a general description of the mining operations proposed to be conducted during the life of the mine within the proposed permit area, including, at a minimum, the following: a narrative description of the type and method of coal mining procedures and proposed engineering techniques, anticipated annual and total production of coal, by tonnage, and the major equipment to be used for all aspects of those operations; and, a narrative explaining the construction, modification, use, maintenance, and removal of the following facilities (unless retention of such facility is necessary for postmining land use is specified.) The following facilities must be described: dams, embankments, and other impoundments; overburden and topsoil handling and storage areas and structures; coal removal, handling, storage, cleaning, and transportation areas and structures; spoil, coal processing waste, mine development waste, and noncoal waste removal, handling, storage, transportation, and disposal areas and structures; mine facilities; and, water pollution control facilities.

Analysis:

General

The Savage Coal Terminal is used for as a load out facility for coal. The coal can either be shipped out on truck or by rail. The proposed amendment will enable the Permittee to store additional amounts of coal on site. The area that is scheduled for coal storage was originally scheduled to be a coal refuse site.

The area to be redesignated as a "Coal Stockpile Area," encompasses 13.34 acres. The area is located Southwest of the Trail Canyon Truck Dump, within the railroad loop. Maps 3-1, and 3-2 show the location of the storage area. The area is approved and permitted in the MRP as a "Coal Refuse" storage area. At present the area is undisturbed and contains approximately 10,620 cubic yards of topsoil material based on a stripping depth of 6 inches. Drainage control structures are in place and adequately sized to accommodate additional runoff from the area. Minor adjustments to the reclamation cost estimate may require a slight change to the reclamation bond (3.87% increase).

Findings:

The Permittee has met the minimum requirements for giving the Division information about the general activities that will be conducted at the site.

AIR POLLUTION CONTROL PLAN

Regulatory Reference: 30 CFR 784.26, 817.95; R645-301-244.

Analysis:

The approved MRP contains an Air Pollution Control Plan for the loadout facility. The protection of air quality is described for in section 3.4.6 and Appendix 11-1 of the approved MRP. The plan allows for 8,000,000 tons of coal storage at the loadout facility. Currently there is 250,000 Tons of coal stored on site and approximately 1,000,000 tons of refuse. The additional 13-acre site is expected to hold 350,000 Tons of coal. [2]

Findings:

The information provided in the application and the MRP is adequate to meet the requirements of this section of the regulations.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR 817.22; R645-301-230.

Minimum Regulatory Requirements:

Topsoil removal and storage

All topsoil shall be removed as a separate layer from the area to be disturbed, and segregated. Where the topsoil is of insufficient quantity or of poor quality for sustaining vegetation, the selected overburden materials approved by the Division for use as a substitute or supplement to topsoil shall be removed as a separate layer from the area to be disturbed, and segregated. If topsoil is less than 6 inches thick, the operator may remove the topsoil and the unconsolidated materials immediately below the topsoil and treat the mixture as topsoil.

The Division may choose not to require the removal of topsoil for minor disturbances which occur at the site of small structures, such as power poles, signs, or fence lines; or, will not destroy the existing vegetation and will not cause erosion.

All materials shall be removed after the vegetative cover that would interfere with its salvage is cleared from the area to be disturbed, but before any drilling, blasting, mining, or other surface disturbance takes place.

Selected overburden materials may be substituted for, or used as a supplement to, topsoil if the operator demonstrates to the Division that the resulting soil medium is equal to, or more suitable for sustaining vegetation than, the existing topsoil, and the resulting soil medium is the best available in the permit area to support revegetation.

Materials removed shall be segregated and stockpiled when it is impractical to redistribute such materials promptly on regraded areas. Stockpiled materials shall: be selectively placed on a stable site within the permit area; be protected from contaminants and unnecessary compaction that would interfere with revegetation; be protected from wind and water erosion through prompt establishment and maintenance of an effective, quick growing vegetative cover or through other measures approved by the Division; and, not be moved until required for redistribution unless approved by the Division.

Where long-term surface disturbances will result from facilities such as support facilities and preparation plants and where stockpiling of materials would be detrimental to the quality or quantity of those materials, the Division may approve the temporary distribution of the soil materials so removed to an approved site within the permit area to enhance the current use of that site until needed for later reclamation, provided that: such action will not permanently diminish the capability of the topsoil of the host site; and, the material will be retained in a condition more suitable for redistribution than if stockpiled.

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[2] Personal communication between Priscilla Burton and Dan Guy on March 21, 2002 and with Boyd Rhodes on March 15, 2002.

The Division may require that the B horizon, C horizon, or other underlying strata, or portions thereof, be removed and segregated, stockpiled, and redistributed as subsoil in accordance with the above requirements if it finds that such subsoil layers are necessary to comply with the revegetation.

Analysis:

Removal and Storage

Table 8-6 of the submittal indicates that there will be 8,160 bank cubic yards of topsoil stripped from the Chipeta map unit and 2,460 bank cubic yards of topsoil stripped from the Killpack map unit for a total of 10, 620 cubic yards. Stripping depth is listed as six inches for both map units. Therefore, the Division calculates that there will be approximately 10 acres of Chipeta soils and 3.0 acres of Killpack soils disturbed.

Table 8-6 of the MRP indicates that ten inches of the Killpack soils are suitable for salvage. If ten inches of Killpack were removed, that would increase the salvaged volume to 4,017 bank cubic yards for the Killpack Series, an increase of 1,557 bank cubic yards. This increase in salvage would cover an additional 2 acres of disturbance with six inches of soil at reclamation.

Perhaps even sixteen inches of soil could be removed from the Killpack soil (see discussion under Environmental Resource – Soils). In that case an additional 6,292 bank cubic yards of soil could be salvaged, an increase of 3,832 bank cubic yards. In this case almost 4.7 more acres of disturbed ground could receive a six-inch soil treatment at the time of final reclamation.

The MRP indicates in Section 3.5.2, page 3-53 that as additional topsoil and subsoil is placed on the respective stockpiles they will be reclaimed contemporaneously with the first suitable growing season. The term contemporaneous should be changed to interim. Contemporaneous reclamation is final reclamation done in a contemporaneous, timely manner. **There are two key elements of contemporaneous reclamation that have been learned by the Division over time and that have been proven by the 1997 evaluation of test plot #2 and the existing condition of the soil stockpiles (FV030602.doc):**

1. **Incorporation of organic matter into the surface.**
2. **Extreme surface roughening.**

Please refer to the Practical Guide to Reclamation in Utah[3] available on the Internet at http://dogm.nr.state.ut.us for further information on extreme surface roughening and organic matter additions. Any source of organic matter could be utilized. i.e. Lumber mill by-products could be obtained to incorporate into the surface of disturbed land where nitrogen levels were reported to be 70%. The Price River Water Improvement District could supply a source of composted biosolids that for applcation to the topsoil/subsoil storage piles. Green Alfalfa hay could be used again.

[3] Utah Division of Oil, Gas and Mining, Department of Natural Resources. 2000. The Practical Guide to reclamation.

Findings:

Information provided does not meet the minimum soils operational requirements of the Regulations. Prior to approval the permittee must provide the following in accordance with:

R645-301-232, Include a commitment in the plan that a qualified soil scientist will be on site during soil salvage and construction of soil storage piles

R645-301-232.500, Fill in the acreage in revised Table 8-6 and evaluate the potential of the Killpack soil to provide up to sixteen inches soil for salvage as described in the existing MRP, Tables 8-5 and 8-6

R645-301-231.400, Describe in Section 3.5.2 the use of extreme roughening and incorporation of organic matter into the surface of the salvaged and stockpiled soil

R645-301-352, Replace references to contemporaneous reclamation with interim reclamation when referring to reclamation to be conducted prior to final reclamation.

VEGETATION

Regulatory Reference: R645-301-330, -301-331, -301-332.

Minimum Regulatory Requirements:

Each application will contain a plan for protection of vegetation, fish, and wildlife resources throughout the life of the mine. The plan will provide a description of the measures taken to disturb the smallest practicable area at any one time and through prompt establishment and maintenance of vegetation for interim stabilization of disturbed areas to minimize surface erosion. This may include part or all of the plan for final revegetation as described in reclamation plan for revegetation.

For UNDERGROUND COAL MINING AND RECLAMATION ACTIVITIES a description of the anticipated impacts of subsidence on renewable resource lands and how such impact will be mitigated needs to be presented.

A description of how, to the extent possible, using the best technology currently available, the operator will minimize disturbances and adverse impacts. This description will include protective measures that will be used during the active mining phase of operation. Such measures may include the establishment of buffer zones, the selective location and special design of haul roads and powerlines, the monitoring of surface water quality and quantity, and through prompt establishment and maintenance of vegetation for interim stabilization of disturbed areas to minimize surface erosion.

Analysis:

Seeding of the topsoil piles has been with the temporary seed mix found in Table 3-1 (MRP, page 3-54 and 3-57). The current seed mix has not been too successful in creating a diverse cover. Except for Indian Rice Grass and Winterfat, it contains undesirable, introduced species. The Mining and Reclamation plan indicates on page 3-58 that the seed mix may undergo refinement. The following species were chosen for their tolerance of fine-textured soil and low water requirements and their success or lack thereof in test plots #1 and #2. This seed mix may be suitable for seeding on the salvaged topsoil pile and is recommended:

SPECIES	POUNDS OF PURE LIVE SEED/ACRE*
Shrubs:	
Atriplex corrugata (Mat saltbush)	2.0
Atriplex gardneri var. *cuneata* (Castle valley clover)	2.0
Ceratoides lanata (Winterfat)	2.0
Atriplex canescens (Fourwing saltbush)	2.0
Forbs:	
Sphaeralcea coccinea (Scarlet globemallow)	1.5
Grasses:	
Stipa hymenoides (Indian ricegrass)	4.0
Bouteloua gracilis (Blue grama)	1.0
Elymus elymoides (Bottlebrush squirreltail)	4.0
Pseudoroegneria spicata (Bluebunch wheatgrass)	7.0
Sporobolus airoides (Alkali sacaton)	0.5
Total	31.0

*Broadcast or hydroseeded.

Findings:

The information provided does not meet the minimum requirements of the interim stabilization of disturbed areas to minimize surface erosion. Prior to approval the permittee must provide the following in accordance with:

R645-301-331, Revise the temporary seed mix in Table 3-1 to reflect the outcome of test plots #1 and #2 and to have native species that are tolerant of fine-textured soil and have low moisture requirements

SPOIL AND WASTE MATERIALS

Regulatory Reference: 30 CFR 701.5, 784.19, 784.25, 817.71, 817.72, 817.73, 817.74, 817.81, 817.83, 817.84, 817.87, 817.89; R645-100-200, -301-210, -301-211, -301-212, -301-412, -301-512, -301-513, -301-514, -301-521, -301-526, -301-528, -301-535, -301-536, -301-542, -301-553, -301-745, -301-746, -301-747.

Minimum Regulatory Requirements:

Refuse piles

Refuse piles shall meet the requirements of coal mine waste, the additional requirements provided below and the requirements of 30 CFR Sections 77.214 and 77.215.

If the disposal area contains springs, natural or manmade water courses, or wet-weather seeps, the design shall include diversions and underdrains as necessary to control erosion, prevent water infiltration into the disposal facility, and ensure stability. Uncontrolled surface drainage may not be diverted over the outslope of the refuse pile. Runoff from areas above the refuse pile and runoff from the surface of the refuse pile shall be diverted into stabilized diversion channels designed to safely pass the runoff from

a 100-year, 6-hour precipitation event. Runoff diverted from undisturbed areas need not be commingled with runoff from the surface of the refuse pile.

Underdrains shall comply with the general requirements for the disposal of excess spoil.

Slope protection shall be provided to minimize surface erosion at the site. All disturbed areas, including diversion channels that are not riprapped or otherwise protected, shall be revegetated upon completion of construction.

All vegetative and organic materials shall be removed from the disposal area prior to placement of coal mine waste. Topsoil shall be removed, segregated and stored or redistributed. If approved by the Division, organic material may be used as mulch or may be included in the topsoil to control erosion, promote growth of vegetation, or increase the moisture retention of the soil.

The final configuration of the refuse pile shall be suitable for the approved postmining land use. Terraces may be constructed on the outslope of the refuse pile if required for stability, control of erosion, conservation of soil moisture, or facilitation of the approved postmining land use. The grade of the outslope between terrace benches shall not be steeper than 2h:1v (50 percent).

No permanent impoundments shall be allowed on the completed refuse pile. Small depressions may be allowed by the Division if they are needed to retain moisture, minimize erosion, create and enhance wildlife habitat, or assist revegetation, and if they are not incompatible with the stability of the refuse pile.

Following final grading of the refuse pile, the coal mine waste shall be covered with a minimum of 4 feet of the best available, nontoxic and noncombustible material, in a manner that does not impede drainage from the underdrains. The Division may allow less than 4 feet of cover material based on physical and chemical analyses which show that the revegetation requirements will be met.

A qualified registered professional engineer, or other qualified professional specialist under the direction of the professional engineer, shall inspect the refuse pile during construction. The professional engineer or specialist shall be experienced in the construction of similar earth and waste structures. Such inspection shall be made at least quarterly throughout construction and during critical construction periods. Critical construction periods shall include, at a minimum: Foundation preparation including the removal of all organic material and topsoil; Placement of underdrains and protective filter systems; Installation of final surface drainage systems; and, The final graded and revegetated facility. Regular inspections by the engineer or specialist shall also be conducted during placement and compaction of coal mine waste materials. More frequent inspections shall be conducted if a danger of harm exists to the public health and safety or the environment. Inspections shall continue until the refuse pile has been finally graded and revegetated or until a later time as required by the Division.

The qualified registered professional engineer shall provide a certified report to the Division promptly after each inspection that the refuse pile has been constructed and maintained as designed and in accordance with the approved plan and this Chapter. The report shall include appearances of instability, structural weakness, and other hazardous conditions. The certified report on the drainage system and protective filters shall include color photographs taken during and after construction, but before underdrains are covered with coal mine waste. If the underdrain system is constructed in phases, each phase shall be certified separately. The photographs accompanying each certified report shall be taken in adequate size and number with enough terrain or other physical features of the site shown to provide a relative scale to the photographs and to specifically and clearly identify the site. A copy of each inspection report shall be retained at or near the mine site.

Analysis:

Refuse Piles

The production of coal refuse ceased when washing coal became cost prohibitive in 1981. The portion of the facility associated with washing coal shut down and the existing refuse is being shipped to a cogeneration facility. In the next year it is expected that 112,000 tons of refuse will be shipped to Sunnyside Cogeneration.

Findings:

The information provided is adequate for the purposes of the Regulations.

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Minimum Regulatory Requirements:

General

All underground mining and reclamation activities shall be conducted to minimize disturbance of the hydrologic balance within the permit and adjacent areas, to prevent material damage to the hydrologic balance outside the permit area, and to support approved postmining land uses in accordance with the terms and conditions of the approved permit and the performance standards of this part. The Division may require additional preventative, remedial, or monitoring measures to assure that material damage to the hydrologic balance outside the permit area is prevented. Mining and reclamation practices that minimize water pollution and changes in flow shall be used in preference to water treatment.

Analysis:

General

Vegetation Map Plate 9-1 indicates that there is an area of saltgrass-wetlands. Soils Map 8-1 illustrates an area of Killpack high water table variant soils. The existence of the wetland must be verified. If a wetland exists, then a permit from the U.S. Army Corps must be obtained under Nationwide Permit 21. For the purposes of obtaining a permit from the U.S. Army Corps, qualified individuals who have received training from the U.S. Army Corps must be employed to delineate the wetland.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

R645-301-731, If the existence of a wetland is determined, a permit from the U.S. Army Corps must be obtained under Nationwide Permit 21 to fill the wetland soils as shown on Plates 8-1 and 9-1. (For the purposes of obtaining a permit from the U.S. Army Corps, qualified individuals who have received training from the U.S. Army Corps must be employed to delineate the wetland.)

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Minimum Regulatory Requirements:

Each application shall contain maps, plans, and cross sections which show the mining activities to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown and described as an existing structure.

The following shall be shown for the proposed permit area:

Mining facilities maps

Location of each facility used in conjunction with mining operations. Such structures and facilities shall include, but not be limited to: buildings, utility corridors, roads, and facilities to be used in mining and reclamation operations or by others within the permit area; each coal storage, cleaning, and loading area; each topsoil, spoil, coal preparation waste, underground development waste, and noncoal waste storage area; each water diversion, collection, conveyance, treatment, storage and discharge facility; each source of waste and each waste disposal facility relating to coal processing or pollution control; each facility to be used to protect and enhance fish and wildlife related environmental values; each explosives storage and handling facility; location of each sedimentation pond, permanent water impoundment, coal processing waste bank, and coal processing water dam and embankment, and disposal areas for underground development waste and excess spoil; and, each plan or profile, at cross sections specified by the Division, of the anticipated surface configuration to be achieved for the affected areas during mining operations.

Certification Requirements

Cross sections, maps, and plans required to show the design, location, elevation, or horizontal or vertical extent of the land surface or of a structure or facility used to conduct mining and reclamation operations shall be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such cross sections, maps, and plans, a qualified, registered, professional land surveyor, with assistance from experts in related fields such as landscape architecture.

Each detailed design plan for an impounding structure that meets or exceeds the size or other criteria of the Mine Safety and Health Administration, 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified registered professional engineer with assistance from experts in related fields such as geology, land surveying, and landscape architecture; include any geotechnical investigation, design, and construction requirements for the structure; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Each detailed design plan for an impounding structure that does not meet the size or other criteria of 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, or in any State which authorizes land surveyors to prepare and certify such plans, a qualified, registered, professional land surveyor, except that all coal processing waste dams and embankments shall be certified by a qualified, registered, professional engineer; include any design and construction requirements for the structure, including any required geotechnical information; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Analysis:

Mining Facilities Maps

Plate 3-2, Savage Coal Terminal Facility Map, show the location of the facilities, supporting structures, roads, rail lines and the topography. The plate has been modified to show the addition of the new coal stockpile area.

While the contour lines are shown on Plate 3-2, the elevations for the contours are not given. The Division needs to have the contour elevations shown in order to compare the operational phase with the reclamation phase. Note: the contour interval is shown to be two feet on Plate 3-2.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

R645-301-521.150, The Permittee must show the elevation of the topographic lines on Plate 3-2.

RECLAMATION PLAN

POSTMINING LAND USES

Regulatory Reference: 30 CFR 784.15, 784.200, 785.16, 817.133; R645-301-412, -301-413, -301-414, -302-270, -302-271, -302-272, -302-273, -302-274, -302-275.

Minimum Regulatory Requirements:

In general, all disturbed areas shall be restored in a timely manner to conditions that are capable of supporting: the uses they were capable of supporting before any mining; or higher or better uses.

Provide a detailed description of the proposed use, following reclamation, of the land to be affected within the proposed permit area by surface operations or facilities, including a discussion of the utility and capacity of the reclaimed land to support a variety of alternative uses, and the relationship of the proposed use to existing land-use policies and plans. This description shall explain: how the proposed postmining land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use; where a land use different from the premining land use is proposed, all materials needed for approval of the alternative use; and, the consideration given to making all of the proposed underground mining activities consistent with surface owner plans and applicable State and local land-use plans and programs.

The description shall be accompanied by a copy of the comments concerning the proposed use from the legal or equitable owner of record of the surface areas to be affected by surface operations or facilities within the proposed permit area and the State and local government agencies which would have to initiate, implement, approve, or authorize the proposed use of the land following reclamation.

Determine premining uses of land. The premining uses of land to which the postmining land use is compared shall be those uses which the land previously supported, if the land has not been previously mined and has been properly managed. The postmining land use for land that has been previously mined and not reclaimed shall be judged on the basis of the land use that existed prior to any mining; Provided that, If the land cannot be reclaimed to the land use that existed prior to any mining because of the previously mined condition, the postmining land use shall be judged on the basis of the highest and best use that can be achieved which is compatible with surrounding areas and does not require the disturbance of areas previously unaffected by mining.

Criteria for alternative postmining land uses. Higher or better uses may be approved as alternative postmining land uses after consultation with the landowner or the land management agency having jurisdiction over the lands, if the proposed uses meet the following criteria: there is a reasonable likelihood for achievement of the use; the use does not present any actual or probable hazard to public health and safety, or threat of water diminution or pollution; and , the use will not be impractical or unreasonable, inconsistent with applicable land use policies or plans, involve unreasonable delay in implementation, or cause or contribute to violation of Federal, State, or local law.

Approval of an alternative postmining land use, may be met by requesting approval through the permit revision procedures rather than requesting such approval in the original permit application. The original permit application, however, must demonstrate that the land will be returned to its premining land use capability. An application for a permit revision of this type must be submitted in accordance with the requirements of filing for a Significant Permit Revision and shall constitute a significant alternation from the mining operations contemplated by the original permit, and shall be subject to the requirements for permits, permit processing, and administrative and judicial of decisions on permits under the regulatory program.

Surface coal mining operations may be conducted under a variance from the requirement to restore disturbed areas to their approximate original contour, if the following requirements are satisfied:

1.) The Division grants a variance from approximate original contour restoration requirements.
2.) The alternative postmining land use requirements are met.
3.) All applicable requirements of the act and the regulatory program, other than the requirement to restore disturbed areas to their approximate original contour, are met.
4.) After consultation with the appropriate land use planning agencies, if any, the potential use is shown to constitute an equal or better economic or public use.
5.) The proposed use is designed and certified by a qualified registered professional engineer in conformance with professional standards established to assure the stability, drainage, and configuration necessary for the intended use of the site.
6.) After approval, where required, of the appropriate State environmental agencies, the watershed of the permit and adjacent areas is shown to be improved.
7.) The highwall is completely backfilled with spoil material, in a manner which results in a static factor of safety of at least 1.3, using standard geotechnical analysis.

8.) Only the amount of spoil as is necessary to achieve the postmining land use, ensure the stability of spoil retained on the bench, and all spoil not retained on the bench shall be placed in accordance with all other applicable regulatory requirements.

9.) The surface landowner of the permit area has knowingly requested, in writing, that a variance be granted, so as to render the land after reclamation, suitable for an industrial, commercial, residential, or public use (including recreational facilities.)

10.) Federal, State, and local government agencies with an interest in the proposed land use have an adequate period in which to review and comment on the proposed use.

Analysis:

The post-mining land use for the site is small mammal and songbird habitat (MRP, Section 10-5). Enhancement of the riparian zones within the disturbed area and the proximity of the site to the Price River will encourage utilization of the reclaimed site by migratory birds (see deficiency listed under R645-301-342.100). Surrounding land is cropland and industrial in use.

Findings:

The information provided is adequate for the post-mining land use requirements of the Regulations.

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR 817.22; R645-301-240.

Minimum Regulatory Requirements:

Redistribution

Topsoil materials shall be redistributed in a manner that: achieves an approximately uniform, stable thickness consistent with the approved postmining land use, contours, and surface-water drainage systems; prevents excess compaction of the materials: and, protects the materials from wind and water erosion before and after seeding and planting.

Before redistribution of the material, the regarded land shall be treated if necessary to reduce potential slippage of the redistribution material and to promote root penetration. If no harm will be caused to the redistributed material and reestablished vegetation, such treatment may be conducted after such material is replaced.

The Division may choose not to require the redistribution of topsoil or topsoil substitutes on the approved postmining embankments of permanent impoundments or of roads if it determines that placement of topsoil or topsoil substitutes on such embankments is inconsistent with the requirement to use the best technology currently available to prevent sedimentation, and, such embankments will be otherwise stabilized.

Nutrients and soil amendments shall be applied to the initially redistributed material when necessary to establish the vegetative cover.

The Division may require that the B horizon, C horizon, or other underlying strata, or portions thereof, removed and segregated, stockpiled, be redistributed as subsoil in accordance with the requirements of the above if it finds that such subsoil layers are necessary to comply with the revegetation requirements.

Analysis:

Redistribution

Currently, there are 112.6 acres disturbed and 40,475 cubic yards of topsoil and subsoil stored at the site.

Changes to the Topsoil Mass Balance Table 8-9 reflect the 13.3-acre disturbance as follows:

- Topsoil available = 60,095 cubic yards.
- Disturbed area = 125.9 acres.
- Post-Law Disturbance = 48.7 acres.
- Topsoil required (Post Law) = 39,285 cubic yards, reflecting the commitment to re-apply six inches of topsoil to post-law areas.
- Max area for 6" redistribution = 74.5 acres, reflecting the area that could be covered to a depth of six inches by the stored soil.

If ten inches were salvaged from 3.0 acres, the Maximum Area for 6" redistribution would be 76.5 acres.

Findings:

The information provided does not meet the topsoil redistribution requirements of the Regulations. Prior to approval the permittee must provide the following in accordance with:

R645-301-240, Modify the Topsoil Mass Balance Table 8-9 to reflect actual salvage depths of soils after evaluation by a qualified soil scientist, i.e. topsoil available may increase as well as maximum area for 6" redistribution

REVEGETATION

Regulatory Reference: 30 CFR 785.18, 817.111, 817.113, 817.114, 817.116; R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284.

Minimum Regulatory Requirements:

Revegetation: Standards for success

Success of revegetation shall be judged on the effectiveness of the vegetation for the approved postmining land use, the extent of cover compared to the cover occurring in natural vegetation of the area, and the general requirements for Revegetation. Standards for success and statistically valid sampling techniques for measuring success shall be selected by the Division and included in an approved regulatory program.

Standards for success shall include criteria representative of unmined lands in the area being reclaimed to evaluate the appropriate vegetation parameters of ground cover, production, or stocking. Ground cover, production, or stocking shall be considered equal to the approved success standard when it is not less than 90 percent of the success standard. The sampling techniques for measuring success shall use a 90-percent statistical confidence interval (i.e., a one-sided test with a 0.10 alpha error).

Standards for success shall be applied in accordance with the approved postmining land use and, at a minimum, the following conditions:

1.) For areas developed for use as grazing land or pasture land, the ground cover and production of living plants on the revegetated area shall be at least equal to that of a reference area or such other success standards approved by the Division.

2.) For areas developed for use as cropland, crop production on the revegetated area shall be at least equal to that of a reference area or such other success standards approved by the Division.

3.) For areas to be developed for fish and wildlife habitat, recreation, shelter belts, or forest products, success of vegetation shall be determined on the basis of tree and shrub stocking and vegetative ground cover. Such parameters are described as follows: minimum stocking and planting arrangements shall be specified by the Division on the basis of local and regional conditions and after consultation with and approval by the State agencies responsible for the administration of forestry and wildlife programs. Consultation and approval may occur on either a programwide or a permit-specific basis; trees and shrubs that will be used in determining the success of stocking and the adequacy of the plant arrangement shall have utility for the approved postmining land use. Trees and shrubs counted in determining such success shall be healthy and have been in place for not less than two growing seasons. At the time of bond release, at least 80 percent of the trees and shrubs used to determine such success shall have been in place for 60 percent of the applicable minimum period of responsibility; and, vegetative ground cover shall not be less than that required to achieve the approved postmining land use.

For areas to be developed for industrial, commercial, or residential use less than 2 years after regrading is completed, the vegetative ground cover shall not be less than that required to control erosion.

For areas previously disturbed by mining that were not reclaimed to the requirements of the performance standards and that are remined or otherwise redisturbed by surface coal mining operations, as a minimum, the vegetative ground cover shall be not less than the ground cover existing before redisturbance and shall be adequate to control erosion.

The period of extended responsibility for successful revegetation shall begin after the last year of augmented seeding, fertilizing, irrigation, or other work, excluding husbandry practices that are approved by the Division.

In areas of more than 26.0 inches of annual average precipitation, the period of responsibility shall continue for a period of not less than five full years. Vegetation parameters identified for grazing land or pasture land and cropland shall equal or exceed the approved success standard during the growing seasons of any two years of the responsibility period, except the first year. Areas approved for the other uses shall equal or exceed the applicable success standard during the growing season of the last year of the responsibility period.

In areas of 26.0 inches or less average annual precipitation, the period of responsibility shall continue for a period of not less than 10 full years. Vegetation parameters shall equal or exceed the approved success standard for at least the last 2 consecutive years of the responsibility period.

The Division may approve selective husbandry practices, excluding augmented seeding, fertilization, or irrigation, provided it obtains prior approval from the Director as a State Program Amendment that the practices are normal husbandry practices, without extending the period of responsibility for revegetation success and bond liability, if such practices can be expected to continue as part of the postmining land use or if discontinuance of the practices after the liability period expires will not reduce the probability of permanent revegetation success. Approved practices shall be normal husbandry practices within the region for unmined lands having land uses similar to the approved postmining land use of the disturbed area, including such practices as disease, pest, and vermin control; and any pruning, reseeding, and transplanting specifically necessitated by such actions.

Analysis:

Standards for Success

As shown on Plates 3-2 and 9-1 and discussed in Sections 3.4.4.2 and 9.3.2.5, a reference area was set up in 1980 for the shadscale phase of the salt desert community to establish revegetation success standards for the entire mine site. Production of the reference area was estimated at 450-lbs/acre air dry and the site was rated in good condition in September 1983 by Mr. Don Andrew, Range Conservationist with the USDA SCS (MRP, Figure 9-1). None of the Annual Reports for the site have included a reference area evaluation.

Table 9-6 of the MRP outlines the percent cover by species in the reference area. Total percent vegetative cover was reported as 17.6% with the most dominant shrubs being shadscale (Atriplex confertifolia), winterfat (Ceratoides lanata) and an unknown Compositae shrub. The

most predominant grass was galleta (Hilaria jamesii) and the most dominant forb was Penstemon sp.

The permit area includes areas disturbed both before and after passage of the Surface Mining Control and Reclamation Act (SMCRA). Success standards for all areas will be 90% of the cover found on the shadscale reference area (Section 3.5.5.2 and Section 9.5, p 9-22). However, the plan indicates in Section 3.5.5.2, page 3-61 that the Permittee does not intend to meet the density of 2,267 shrubs/acre found in the reference area. The Permittee is taking this position because the shrubs were all less than one foot in height in the reference area. To my knowledge there has been no distinction made at other mine sites[4] between the requirement for shrub establishment and shrub height. However, there has been a distinction made between pre-law (areas affected prior to August 3, 1977) and post-law sites. The Permittee should make every effort to re-establish diversity on the reclaimed site.

The reference area soils are described as Chipeta silty clay slopes 3-20%. The reference area soils differ from much of the permit area in that their elevation places them above the water table and they are not subject to accumulations of salt from ponding water as are the Killpack soils that support the wetland salt grass vegetation.

The Division suspects that upon reclamation, sizeable areas of ponded water will exist at the entire site for the following reasons:

- During recent removal of refuse, the Permittee was obliged to remove equipment from areas along the eastern boundary of the permit due to the elevated water table.
- As noted in the MRP Section 9.5 "eventual soil saturation or inundation of the low western permit area is possible upon final reclamation."
- As noted in the MRP Section 9.2.1, page 9-2, "A sedge meadow was mapped during the original study (June 1980), adjacent to the current western permit boundary. Although no such type was actually mapped within the permit area, a low area does exist within the currently mapped Disturbed, Agricultural area, now drained by a French drain."

These wetlands will not likely meet the criteria for success established for higher ground, i.e. diversity. It may be advantageous to the Permittee to quantitatively document the condition of the wetland vegetation within the proposed disturbed area so that successful reclamation for wetland areas within the permit can be patterned after previously existing wetland descriptions. i.e. the baseline data method described in the Vegetation Information Guidelines.[5] The wetland within the proposed disturbance is one of two last wetlands remaining in the permit area.

Findings:

Information in the mining and reclamation plan does not meet the revegetation requirements of the Regulations. Prior to approval the permittee must provide the following in accordance with:

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[4] Emery Deep Mining and Reclamation Permit C/015/105, Section VIII.C.9 , page 24 and Wellington Preparation Plant Mining and Reclamation Plan C/007/012, Section 3.41, page 54.

[5] Utah Division of Oil, Gas and Mining. February 1992. Vegetation Information Guidelines. p 6.

R645-301-356.100, Document quantitatively the vegetation of the saltgrass wetland before disturbance, include confirmation of the areal extent of the wetland as shown on Plate 9-1

R645-301-342.100, Include in the reclamation plan enhancement measures to be used to restore the saltgrass wetland

R645-301-356.110, Arrange for an evaluation of the range condition and productivity of the reference area by the Natural Resources Conservation Service during the 2002 growing season

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR 817.95; R645-301-244.

Minimum Regulatory Requirements:

All exposed surface areas shall be protected and stabilized to effectively control erosion and air pollution attendant to erosion. Rills and gullies which form in areas that have been regraded and topsoiled and which either disrupt the approved postmining land use or the reestablishment of the vegetative cover, or, cause or contribute to a violation of water quality standards for receiving streams, shall be filled, regraded, or otherwise stabilized; topsoil shall be replaced; and the areas shall be reseeded or replanted.

Analysis:

Previous treatment of soil stockpiles is described in Section 3.5.2. The piles were smoothly graded and tilled to a depth of 5 inches. Slopes greater than 20% were prepared using a crawler tractor at right angles to the slope to leave grouser tracks parallel to the slope. This sort of treatment should be abandoned in favor of a stockpile that has limited south exposure, which is left in a roughened condition by pocking. A request for this type of treatment was made under Operation Plan, Topsoil and Subsoil Handling.

Mulch will be applied at a rate of 2,000 pounds/acre and either crimped with a disc or stabilized with a tackifier (page 3-47). Wood fiber mulch will be over-sprayed at a rate of 2000lbs/acre in combination with 60 lbs of Tac per acre (page 3-54a). Mulching is also described in Section 3.5.5.3, page 3-62.

The Division recommends that hay mulch is incorporated with the extreme roughening technique, followed by a hydromulch application of wood fiber mulch and tackifier.

Findings:

The information provided is not the best technology for stabilization of surface areas. Prior to approval the permittee must provide the following in accordance with:

R645-301-244, Modify the plan on page 3-54 and 3-54a, Section 3.5.2, to state that 2,000

pounds/acre of hay mulch will be applied to the soil stockpile prior to roughening the soil and 2,000 lbs/ac of wood fiber mulch and 60 lbs/ac tackifier will be applied to the surface with the hydro-seeding operation.

MAPS, PLANS, AND CROSS SECTIONS OF RECLAMATION OPERATIONS

Regulatory Reference: 30 CFR 784.23; R645-301-323, -301-512, -301-521, -301-542, -301-632, -301-731.

Minimum Regulatory Requirements:

Each application shall contain maps, plans, and cross sections which show the reclamation activities to be conducted, the lands to be affected throughout the operation, and any change in a facility or feature to be caused by the proposed operations, if the facility or feature was shown and described as an existing structure.

The permit application must include as part of the reclamation plan information, the following maps, plans and cross sections:

Reclamation backfilling and grading maps

Contour maps and cross sections to adequately show detail and design for backfilling and grading operations during reclamation. Where possible, cross sections shall include profiles of the pre-mining, operations, and post-reclamation topography. Contour maps shall be at a suitable scale and contour interval so as to adequately detail the final surface configuration. When used in the formulation of mass balance calculations, cross sections shall be at adequate scale and intervals to support the mass balance calculations. Mass balance calculations derived from contour information must demonstrate that map scale and contour accuracy are adequate to support the methods used in such earthwork calculations. Detailed cross sections shall be provided when required to accurately depict reclamation designs which include, but are not limited to: terracing and benching, retained roads, highwall remnants, slopes requiring geotechnical analysis, and embankments of permanent impoundments.

Certification Requirements.

Cross sections, maps, and plans required to show the design, location, elevation, or horizontal or vertical extent of the land surface or of a structure or facility used to conduct mining and reclamation operations shall be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, a professional geologist, or in any State which authorizes land surveyors to prepare and certify such cross sections, maps, and plans, a qualified, registered, professional land surveyor, with assistance from experts in related fields such as landscape architecture.

Each detailed design plan for an impounding structure that meets or exceeds the size or other criteria of the Mine Safety and Health Administration, 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified registered professional engineer with assistance from experts in related fields such as geology, land surveying, and landscape architecture; include any geotechnical investigation, design, and construction requirements for the structure; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Each detailed design plan for an impounding structure that does not meet the size or other criteria of 30 CFR Section 77.216(a) shall: be prepared by, or under the direction of, and certified by a qualified, registered, professional engineer, or in any State which authorizes land surveyors to prepare and certify such plans, a qualified, registered, professional land surveyor, except that all coal processing waste dams and embankments shall be certified by a qualified, registered, professional engineer; include any design and construction requirements for the structure, including any required geotechnical information; describe the operation and maintenance requirements for each structure; and, describe the timetable and plans to remove each structure, if appropriate.

Analysis:

Plate 3-7, Post Mining Topography and Drainage, show the contours for the site after reclamation. The area that is proposed for the expanded coal stockpile is shown on Plate 3-7 as a reclaimed refuse pile. The reclaimed refuse pile is shown as mound. However, the existing topography is shown as a gently dipping surface. Without the refuse to cover, the Permittee will most likely restore the area to the existing topography rather than a mounded area.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

R645-301-542.200, The Permittee must revise Plate 3-7 to show how the new coal stockpile area will be reclaimed. Plate 3-7 shows that the area will contain a mound that is buried coal refuse. The current plan is to use the area for coal storage instead of a refuse pile.

BONDING AND INSURANCE REQUIREMENTS

Regulatory Reference: 30 CFR 800; R645-301-800, et seq.

Minimum Regulatory Requirements:

General

After a permit application has been approved, but before a permit is issued, the applicant shall file with the Division, on a form prescribed and furnished by the Division, a bond or bonds for performance made payable to the Division and conditioned upon the faithful performance of all the requirements of the Act, the regulatory program, the permit, and the reclamation plan.

The bond or bonds shall cover the entire permit area, or an identified increment of land within the permit area upon which the operator will initiate and conduct surface coal mining and reclamation operations during the initial term of the permit. As surface coal mining and reclamation operations on succeeding increments are initiated and conducted within the permit area, the permittee shall file with the Division an additional bond or bonds to cover such increments.

The operator shall identify the initial and successive areas or increments for bonding on the permit application map and shall specify the bond amount to be provided for each area or increment. Independent increments shall be of sufficient size and configuration to provide for efficient reclamation operations should reclamation by the Division become necessary.

An operator shall not disturb any surface areas, succeeding increments, or extend any underground shafts, tunnels, or operations prior to acceptance by the Division of the required performance bond.

The applicant shall file, with the approval of the Division, a bond or bonds under one of the following schemes to cover the bond amounts for the permit area as determined: a performance bond or bonds for the entire permit area; a cumulative bond schedule and the performance bond required for full reclamation of the initial area to be disturbed; or, an incremental-bond schedule and the performance bond required for the first increment in the schedule.

Determination of bond amount

The amount of the bond required for each bonded area shall: be determined by the Division; depend upon the requirements of the approved permit and reclamation plan; reflect the probable difficulty of reclamation, giving consideration to such factors as topography, geology, hydrology, and revegetation potential; and, be based on, but not limited to, the estimated cost submitted by the permit applicant.

The amount of the bond shall be sufficient to assure the completion of the reclamation plan if the work has to be performed by the Division in the event of forfeiture, and in no case shall the total bond initially posted for the entire area under 1 permit be less than $10,000.

An operator's financial responsibility for repairing material damage resulting from subsidence may be satisfied by the liability insurance policy required in this section.

Analysis:

General

Appendix 2-4 lists the reclamation bond as of December 9, 1997 of $2,525,000.00.

Determination of Bond Amount

The Permittee did not include any bond calculations in the proposed amendment. They did mention reclamation costs in the cover letter. Since the cover letter will not be incorporated into the MRP, the Permittee needs to include bond calculations with the amendment.

The Division reviewed the MRP, and was unable to locate detailed demolition, earthwork, or vegetation costs estimates. Before the Division can evaluate changes in the reclamation cost, they must have a detailed reclamation cost estimate. The reclamation cost estimate should be based on the procedures outline in the OSM reclamation cost handbook. If the Permittee does not have access to the handbook, the Division will supply a copy.

Findings:

The information provided in the proposed amendment is not considered adequate to meet the requirements of this section. Before approval, the Permittee must provide the following in accordance with:

R645-301-542.200, The Permittee must give the Division detailed reclamation cost estimates for the entire site including the new coal stockpile area. The reclamation cost estimates should be based on the OSM reclamation handbook

REQUIREMENTS FOR PERMITS FOR SPECIAL CATEGORIES OF MINING

COAL PREPARATION PLANTS NOT LOCATED WITHIN THE PERMIT AREA OF A MINE

Regulatory Reference: 30 CFR 785.21, 827; R645-302-260, et seq.

Minimum Regulatory Requirements:

This section applies to any person who operates or intends to operate a coal preparation plant in connection with a coal mine but outside the permit area for a specific mine. Any person who operates such a preparation plant shall obtain a permit from the Division in accordance with the requirements of this section.

Any application for a permit for operations covered by this section shall contain an operation and reclamation plan which specifies plans, including descriptions, maps, and cross sections, of the construction, operation, maintenance, and removal of the preparation plant and support facilities operated incident thereto or resulting therefrom. The plan shall demonstrate that those operations will be conducted in compliance with the requirements of this section.

No permit shall be issued for any operation covered by this section, unless the Division finds in writing that, in addition to meeting all other applicable requirements. Any person who operates a coal preparation plant beyond May 10, 1986, that was not subject to this chapter before July 6, 1984, shall have applied for a permit no later than November 11, 1985. Any person operating a coal preparation plant before July 6, 1984, may continue to operate without a permit until May 10, 1986, and may continue to operate beyond that date if: (1) A permit application has been timely filed, (2) the Division has yet to either issue or deny the permit, and (3) the person complies with the applicable performance standards of this section.

Each person who operates a coal preparation plant subject to this part shall obtain a permit, obtain a bond, and operate that plant in accordance with the requirements of this part.

Except as provided, the construction, operation, maintenance, modification, reclamation, and removal activities at coal preparation plants shall comply with the following:

(a) Signs and markers for the coal preparation plant, coal processing waste disposal area, and water-treatment facilities shall comply with 30 CFR Section 816.11.
(b) Any stream channel diversion shall comply with 30 CFR Section 816.43.
(c) Drainage from any disturbed area related to the coal preparation plant shall comply with co CFR Sections 816.45-816.47, and all discharges from these areas shall meet the requirements of 30 CFR Sections 816.41 and 816.42 and any other applicable State or Federal law.
(d) Permanent impoundments associated with coal preparation plants shall meet the requirements of 30 CFR Sections 816.49 and 816.56. Dams constructed of, or impounding, coal processing waste shall comply with 30 CFR Section 816.84.
(e) Disposal of coal processing waste, noncoal mine waste, and excess spoil shall comply with 30 CFR Sections 816.81, 816.83, 816.84, 816.87, 816.89, and 816.71-816.74, respectively.
(f) Fish, wildlife, and related environmental values shall be protection in accordance with 30 CFR Section 816.97.
(g) Support facilities related to the coal preparation plant shall comply with co CFR Section 816.181.
(h) Roads shall comply with 30 CFR Sections 816.150 and 816.151.
(i) Cessation of operations shall be in accordance with 30 CFR Sections 816.131 and 816.132.
(j) Erosion and air pollution attendant to erosion shall be controlled in accordance with 30 CFR Section 816.95.
(k) Adverse effects upon, or resulting from, nearby underground coal mining activities shall be minimized by appropriate measures including, but not limited to, compliance with 30 CFR Section 816.79.
(l) Reclamation shall follow proper topsoil handling, backfilling and grading, revegetation, and postmining land use procedures in accordance with 30 CFR Sections 816.22, 816.100, 816.102, 816.104, 816.106, 816.111, 816.113, 816.114, 816.116, and 816.133, respectively.

Analysis:

The Savage Loadout falls within this category of a preparation plant not located within the permit area of a mine. Coal refuse production ceased when washing coal became cost prohibitive in 1981. The portion of the facility associated with washing coal shut down and the existing refuse is being shipped to a cogeneration facility. Currently, Savage crushes, sizes and blends coal.

Findings:

The Division's review of amendment 02A to the MRP recognizes the requirements for compliance with R645-302-263 and R645-302-264.

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